CONGRESS HANDBOOK



35TH IAHR WORLD CONGRESS

September 8-13, 2013 | Chengdu, China

The wise find pleasure in water:
meandering through water science and engineering

www.iahr2013.org iahr2013@vip.163.com

Ministry of Water Resources of People's Republic of China

International Association for Hydro-Environment Engineering and Research

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Welcome

On behalf of the Ministry of Water Resources of P. R. China and the International Association for Hydro-Environment Engineering and Research, we would like to extend the biggest welcome to you for attending the 35th IAHR World Congress in Chengdu.

The Congress, inspired by the wisdom of "the wise find pleasure in water" from the ancient philosopher Confucius (551-479 BC), marks a journey that meanders through water science and engineering. More than 1400 delegates from over 70 countries and regions gather in Chengdu to brainstorm on 6 key water aspects: water engineering and civilization, hydro-environment, fluvial hydraulics and river management, maritime hydraulics and coastal engineering, water resources and hydro-informatics, and climate change and hazard mitigation. It will prove to be a fulfilling occasion for water and environment engineers to share scientific developments, and exchange ideas and insights.

Rich academic and social events are provided at the Congress: general lectures, technical sessions, poster presentations, master classes, JFK Student Paper Competition, special seminars and workshops; social events such as technical tours; networking events for young professionals and pre-congress IAHR Student Chapter events. We aspire to build an international and colorful water platform to create abundant opportunities for delegates from a variety of fields, including governmental agencies, research institutes, universities, public and private enterprises to meet, share and learn.

The host city Chengdu is acclaimed as the Land of Abundance in ancient China; it boasts a unique Bashu culture and is home to excellent hydro-projects built in ancient and modern times. As the old Chinese saying goes, is it not a delight to meet friends from afar? Therefore, we welcome all of you to this marvelous host city where a memorable IAHR Congress is promised!

Dr. **JIAO Yong** (Chair of Local Organizing Committee; Vice Minister of Water Resources of P. R. China)
Prof. **Roger FALCONER** (IAHR President)

欢 迎

谨此代表中华人民共和国水利部和国际水利与环境工程学会，热烈欢迎您来到中国成都，出席第三十五届国际水利学大会！

承先贤之“智者乐水”，探索水科学及工程之发展。本届大会云集了来自世界 70 多个国家和地区的 1400 多位代表，围绕水工程与社会文明、水环境与水生态、河流水力学及河流管理、海洋水力学及海岸工程、水资源与水信息、气候变化及灾害应对等议题展开研讨。共享先进成果，分享知识经验。

大会主要活动包括全体报告，学术分会，论文墙展，学者讲堂，学生论文竞赛，专题讨论会，技术参观，技术展览及社会活动等，相信丰富的大会活动，将搭建一个多彩的世界水利舞台，为来自管理、科研及企事业单位等不同领域的代表提供一个切磋并分享之难得机会。让我们借力大会平台，促进新发展，应对新挑战。

有朋自远方来，不亦乐乎！成都素享天府之国美誉，独特的巴蜀历史和文化，并集古现代水利之精华。相信这将是我们共同拥有的难忘的 2013 IAHR 盛会！

大会组委会主席　**矫　勇**博士
IAHR 主席　**罗杰·福克纳**教授

Acknowledgements

We would like to take this opportunity to thank all of you for your contributions and inputs in making this Congress a success.

First, our thanks go to Ministry of Water Resources of People's Republic of China and International Association for Hydro-Environment Engineering and Research that provide such a global platform for world water community to meet in Chengdu.

Then our thanks go to sponsors and exhibitors, for your generous support.

Thank all the speakers and presenters, for preparing papers and sharing your exploration in career and the valuable knowledge and experience you have accumulated on the road of your exploration.

Thank you, members from local organizing committee, IAHR council and scientific committee, promoters and chairs of technical sessions, seminars and workshops, reviewers and editors of papers, colleagues and volunteers from organizing universities and research institute. It is the close cooperation that makes possible such a high-quality international event.

Last but not least, thank all the dear delegates, for coming to this Congress. Thank you for your supports and understanding, and particularly for your passion and active participation. Thank you all!

Dr. **JIAO Yong** (Chair of Local Organizing Committee; Vice Minister of Water Resources of P. R. China)
Prof. **WANG Zhaoyin** (Chair of Scientific Committee; Professor of Tsinghua University)

致 谢

借此机会，感谢为大会的成功召开做出贡献和奉献的所有各方！

感谢水利部和 IAHR 提供的这样一个世界舞台，聚全球水利同行共襄盛举。

感谢会议支持单位、协办单位和技术展览单位，是你们的大力支持，促成会议的成功举办。

感谢大会报告专家和论文发言者，撰写论文并亲临会场，与大家分享你们对事业的探索，分享你们探索之路的宝贵认知和经验。

感谢大会组委会、IAHR 理事会、大会技术委员会的全体成员，感谢学术分会和专题研讨会的倡议者和主持者，感谢论文的审阅专家、编辑同事，以及会议承办单位的同事、志愿者。唯有此精诚合作，方已成就我们这届高质量的国际盛会。

最后，感谢参会的全体代表。感谢你们在会议筹备期间给予的支持和理解，特别是你们的热情和积极参与！

大会组委会主席　**矫　勇**博士
技术委员会主席　**王兆印**教授

Hosts and Organizers

The Congress is hosted by

中华人民共和国水利部
The Ministry of Water Resources of P. R. China
www.mwr.gov.cn

国际水利与环境工程学会
International Association for Hydro-Environment Engineering and Research
www.iahr.org

and organized by

中国水利水电科学研究院
China Institute of Water Resources and Hydropower Research
www.iwhr.com

四川大学
Sichuan University
www.scu.edu.cn

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Tsinghua University
www.tsinghua.edu.cn

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www.hku.hk

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Chengdu Municipal People's Government
www.chengdu.gov.cn

Congress Sponsors

Our thanks to these organizations for their generous support:

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Sichuan Provincial People's Government
www.sc.gov.cn

as well as

中国长江三峡集团公司
China Three Gorges Corporation
www.ctgpc.com.cn

水利部小浪底水利枢纽管理中心
Xiaolangdi Multi-purpose Dam Project Management Center, Ministry of Water Resources
www.xiaolangdi.com.cn

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Sichuan Province Zipingpu Development Co., Ltd.
www.zppdc.com

雅砻江流域水电开发有限公司
Yalong River Hydropower Development Company, Ltd.
www.ehdc.com.cn

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Sinohydro Group Ltd.
www.sinohydro.com

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Changjiang Institute of Survey, Planning, Design and Research, Changjiang Water Resources Commission
www.cjwsjy.com.cn

黄河水利科学研究院
Yellow River Institute of Hydraulic Research, YRCC
www.yrihr.com.cn

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Pearl River Hydraulic Research Institute
www.prwri.com.cn

Local Organizing Committees and IAHR Council

» Local Organizing Committee

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Chair: Dr. JIAO Yong (Vice Minister of Water Resources of P. R. China)
Executive Chairs:
Joseph H. W. LEE (The Hong Kong University of Science and Technology)
GAO Bo (Ministry of Water Resources of P. R. China)
KUANG Shangfu (China Institute of Water Resources and Hydropower Research)
Vice Chairs:
LIU Zhiping (China Institute of Water Resources and Hydropower Research)
XU Weilin (Sichuan University)
GAO Jizhang (IAHR-China Chapter)
CHEN Yongcan (Tsinghua University)
Members:

CHANG Jianbo	CHEN Yunhua	DENG Jiaquan	GUO Xiling	HSU Nien-Sheng
HU Zuoliang	JIA Jinsheng	LENG Gang	LI Hong	LI Yun
LI Zantang	LIAN Jijian	LIN Chuxue	LIN Zexin	LIU Handong
LIU Hongbin	LIU Weiping	LIU Zhiguang	NIU Xinqiang	QIN Jianming
REN Bing	SUN Hongshui	TAN Guangming	TANG Hongwu	WAI Onyx
WANG Aiguo	WANG Hui	WANG Qiusheng	WU Yihang	XU Weiya
XUE Songgui	YAN Xinchun	YANG Chun	YIN Baohe	YU Pao-Shan
ZHANG Zongfu	ZHU Zhenjia			

» IAHR Council

President: Roger FALCONER (Cardiff University, UK)
Vice Presidents:
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WANG Zhaoyin (Tsinghua University, China)
Marian MUSTE (University of Iowa, US)
Secretary General
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Michele MOSSA	Arturo MARCANO	Robert ETTEMA	Massimo GRECO (Co-opted)
Angelos FINDIKAKIS (Co-opted)		PENG Jing (Co-opted)	Christopher B. GEORGE (Executive Director)

Scientific Committees and Congress Secretariat

» Scientific Committee

Chair: WANG Zhaoyin (Tsinghua University, China)

Vice Chairs:

CAO Shuyou (Sichuan University, China)
Peter GOODWIN (University of Idaho, US)
Helmut KOBUS (University of Stuttgart, Germany)
Arthur MYNETT (UNESCO-IHE, Netherland)

Members:

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John Z. SHI
Marcel J. F. STIVE
WANG Guangqian
Silke WIEPRECHT
ZHANG Changkuan

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Paul BATES
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CHEN Su-Chin
George CONSTANTINESCU
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LEE Kwan Tun
Charles Stev MELCHING
P. P. MUJUMDAR
Dan NGUYEN
Ioana POPESCU
Anna Da SILVA
V. SUNDAR
WANG Hao
WOO Hyo Seop
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Nikolai I. ALEKSEEVSKII
Jagat K. BHUSAL
Hubert CHANSON
CHENG Xiaotao
CUI Peng
Eduard EGUSQUIZA
Jose Maria Grassa GARRIDO
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V. P. SINGH
Kuniyoshi TAKEUCHI
WANG Yongxue
Farhad YAZDANDOOST
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Thanos PAPANICOLAOU
SEO Il Won
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WANG Zhengbing
YU Xiping
ZHU Dangsheng

» Secretariat

Secretary General: LIU Zhiping (China Institute of Water Resources and Hydropower Research)

Executive Secretary General:

PENG Jing (China Institute of Water Resources and Hydropower Research)
LIN Pengzhi (Sichuan University)

Deputy Secretary General:

FU Xudong (Tsinghua University)
Kit Ming LAM (The University of Hong Kong)
HAO Zhao (Ministry of Water Resources of P. R. China)

General Information

» Venue

Most Congress activities are arranged in Century City International Convention Center (CCICC), which is near Century City Station of Metro Line One, 15 minutes to downtown Chengdu and 25 minutes drive to Chengdu Shuangliu International Airport.

Address: 88, Century City Boulevard, Chengdu, Sichuan, 610041 China
Front Desk: +86-28-8534-9999
Fax: +86-28-8538-2888
Website: goo.gl/kec1kE or t.cn/zQcoiWk

» Registration Desk

The Congress Registration Desk is located on 3F, CCICC, next to the escalator. The desk will be open on:

- Sunday (Sept. 8): from 09:00 to 20:00
- Monday, Tuesday, Thursday, Friday: from 08:30 to 17:00
- Wednesday (Sept. 11): from 08:30 to 12:00

» Tour Desk

The Tour Desk will be open at 9:00, September 8, 2013. It is located next to the registration desk. If you are interested in booking a tour, staff from *China Comfort Travel* are available to assist you with tour bookings in and around Chengdu and provide consulting services of the post-Congress tours. Furthermore, the travel agency provides booking services for train tickets, domestic and international air tickets.

» Name Badges

It is essential that all delegates including speakers, sponsors and exhibitors wear their name badge at all times and at all Congress sessions and events. Persons not wearing a Congress name badge are likely to be questioned by Congress staff and /or security personnel.

Access to Congress sessions and exhibition will only be permitted to persons wearing official Congress name badges. If you misplace your name badge, please visit the Registration Desk (3F, CCICC) with photo identification to obtain a replacement.

» Catering: Coffee Breaks and Lunch (Monday-Friday)

Morning and afternoon coffee breaks and lunch will be provided on 3F and 5F, CCICC. To access this area, you must be wearing your name badges. Times for breaks and lunch are noted on each day of the Congress Program.

» Special Dietary Requirements

The Congress offers vegetarian lunches (only vegetarian, and only lunches).

» Mobile Phones and Electronic Equipment

Please ensure that your mobile phone or other electronic equipment is set to SILENT or TURNED OFF during all Congress sessions to demonstrate your consideration to the presenters and other delegates. Thank you.

» Certificate of Attendance

A personalized Certificate of Attendance is included in the registration envelope.

» Internet Access

The LOC provides delegates with a free Wi-Fi service, sufficient for basic email and web browsing; however, if you need faster Internet connection for large downloads or file transfers, please go to the business center on 3F, CCICC.

» Medical Emergency

A medical team will stay at the Congress venue from Sunday to Friday. In case of an emergency you can contact Ms. ZHENG Haoyue (+86-138-8061-2017), or you can always go to the Registration Desk (3F, CCICC) for help.

» IAHR Office

The IAHR Office is located in 507 Qing Bai Jiang Hall, CCICC, and open from 12:00 to 17:30 on Sunday (Sept. 8) and from 08:00 to 17:00 from Monday to Friday.

» Oral Presentations

The length of presentation material should be in accordance with your time allotted. All presentation files need to be pre-loaded at the Speakers Preparation Center (309 Shuxiu Hall, CCICC) at least one hour before the start of your session, but we strongly recommend that you do it on the previous day of your presentation. Please always bring your backup presentation files in a USB memory stick. Congress technical staff will be available in the Speakers Preparation Center from 7:30 through 18:00 from Monday to Friday to assist you.

Duration of presentation time:

- Keynote lecture: 45 minutes each, including 5 minutes of Q&A
- Invited lecture: 25 minutes each, including 5 minutes of Q&A
- Oral presentation: 15 minutes each, including 3 minutes of Q&A

Please refer to the programs in this Handbook for specific presentation time. You are kindly requested to arrive at the meeting room at least 15 minutes before the session starts.

Each meeting room is equipped with a computer, a LCD projector and a screen. PowerPoint is the standard presentation format. Computers in the meeting rooms operate on Windows XP platform with Office 2007+. If you have different requirements please inform the Secretariat in advance at iahr2013@vip.163.com. Please note that slide projectors are not available.

» Poster Presentations

Each presenter is provided with a 90cm wide x 120cm high poster board. The presentation must cover the same content as the accepted paper. Please prepare your poster according to the given poster template which can be downloaded from the congress website.

Authors of the posters should give their presentation according to the arrangements of the technical program. Posters to be presented on Tuesday will be kept on board only on Monday and Tuesday, then they will be removed so that posters to be presented on Wednesday and Thursday can be posted and kept until the end of the Congress.

- Place paper title and authors' names prominently at the top of the poster to allow easy identification of your paper.
- The text and illustrations should be legible from at least two meters (six feet) away.
- Posters should be set up according to the Poster Number as shown in the Congress Handbook. Tacks and adhesives will be provided for setting up your posters.
- You can bring your own supplies to the meeting if you have special needs for your poster presentation.
- Poster printing service is available onsite. Please send enquiries and requests to Ms. Carol CAO (leyan242211@hotmail.com), pay and get the printouts at the registration desk. Price: USD30/RMB200 per poster delivery. Please note that it might take as many as 48 hours to process your request.

Congress Social Functions

The Congress includes a range of social functions to allow old friends to catch up and new friends to be made. We hope to see you there!

Please note that entry to all Congress social events (except for those otherwise indicated) is strictly by ticket only. To prevent inconvenience, ensure that you have the correct ticket ready for collection at the entrance to each social event. Persons without tickets will be refused entry.

You will find your pre-ordered tickets in your registration envelope, issued to you when you checked in at the Registration Desk. Please check that you have all of the tickets you ordered. Tickets cannot be replaced or refunded.

Additional tickets to social events may also be purchased at the Registration Desk (subject to availability) up to but not after 24 hours before each event.

» Welcome Drinks

TIME: 17:30-18:30, Sunday, September 8, 2013
VENUE: Exhibition Area (3F), CCICC
DRESS: Smart casual

OPEN TO ALL Casual drinks will be held on Sunday for delegates to meet with colleagues and to familiarize themselves with the Congress venue.

» Opening Ceremony

TIME: 08:30-09:30, Monday, September 9, 2013
VENUE: 501 Crystal Hall, CCICC
DRESS: Business attire

Vice Minister of Water Resources of China Dr. JIAO Yong will be chairing the opening ceremony. IAHR President Roger FALCONER will award several prizes, including the IPPEN, Yalin, etc.

» IAHR President's Reception

TIME: 18:00-21:00, Monday, September 9, 2013
VENUE: Shunxing Teahouse
DRESS: Business attire

IAHR President Prof. Roger FALCONER, as well as Mrs. FALCONER, will be there to welcome delegates. Shunxing Teahouse, rich in Sichuan traditional taste, is located inside the complex of InterContinental Hotel on ground floor, and can be accessed from inside or outside the lobby of the hotel.

» Introduction of Three Gorges Project

TIME: 19:00-20:30, Tuesday, September 10, 2013
VENUE: 305 Shu Feng Hall, CCICC
DRESS: Smart casual

OPEN TO ALL Official from China Three Gorges Corporation will make an introduction of the Three Gorges Project, and simultaneous interpretation will be provided. An introductory video will also be played, and an interactive session arranged.

» Congress Dinner

TIME: 19:00-22:30, Thursday, September 12, 2013
VENUE: 501 Crystal Hall, CCICC
DRESS: Business attire

The dinner will provide the opportunity for delegates to network and renew acquaintances whilst experiencing delicious Sichuan food and splendid artistic performances. Besides, be ready to participate in the JFK Award Ceremony and enjoy the IAHR President's address.

» Closing Ceremony

TIME: 16:10-17:00, Friday, September 13, 2013
VENUE: 307 Tian Fu Hall, CCICC
DRESS: Business attire

After a conclusion of this Congress by IAHR President Roger FALCONER, an introduction of next Congress will be made, and the host of 37th IAHR World Congress will also be announced.

In-Congress Technical Tours

» IT1: Dujiangyan Irrigation Project

DEPARTURE: Meet at 12:40-13:00 outside the entrance of CCICC
RETURN: To CCICC at about 18:00



Dujiangyan Irrigation Project, an oldest irrigation system in the world, is a wonder in the development of Chinese science. In China, Chengdu is always praised as the Tian Fu Zhi Guo, which means "Land of Abundance". Over 2,200 years ago, the city was threatened by the frequent floods caused by flooding of the Minjiang River (a tributary of the Yangtze River). Li Bing, a local official of Sichuan Province at that time, together with his son, decided to construct an irrigation system on the Minjiang River to prevent flooding. After a lengthy study and a lot of hard work by the local people, the great Dujiangyan Irrigation Project was completed. The project consists of three important parts, namely Yuzui, Feishayan and Baopingkou, which were scientifically designed to control the water flow of the rivers automatically from the mountains to the plains throughout the year. Thanks to Dujiangyan, the Chengdu Plain has been free from floods and enjoys the biggest irrigation area of more than 6, 687 square kilometers (2,581 square miles) in China.

» IT2: Zipingpu Dam

DEPARTURE: Meet at 12:40-13:00 outside the Dicos Restaurant (opposite to the entrance of CCICC accross the street)
RETURN: To CCICC at about 18:00



Located at the junction of Dujiangyan City and Wenchuan County on the upper Minjiang River. The Zipingpu Hydropower Plant was brought into service in 2006. Zipingpu consists of four generators with a total generating capacity of 760 MW. It is designed mainly for flood control, water supply and power generation. The Wenchuan Strong Earthquake on May 12th, 2008 with a magnitude of 8 on Richter scales shocked the whole world. Zipingpu project at only 17km away from the epicenter suffered great damages. However, the dam had withstood the serious test of strong earthquake, becoming the first higher than 100-m CFRD experiencing Magnitude-8 strong earthquake and maintaining safety in the world. The safety of Zipingpu Dam assured the confidence of more than 10 million people living downstream and guaranteed the water and electricity supply during the post-disaster period. The survival of Zipingpu dam means the design, the construction and the maintenance at all levels were correctly organized. The lessons and experience from this project will provide an excellent reference for dam engineers in seismic areas of the world.

Post-Congress Technical Tours

» PT1: Jiuzhai Valley National Park

DEPARTURE: Meet at 08:10 (Sept. 14), outside the entrance of CCICC
RETURN: Dismiss at the airport at about 16:50 or return to hotel of your own reservation (Sept. 16)



Jiuzhai Valley is located in Nanping County, 450 kilometers (about 280 miles) to the north of Chengdu City, Sichuan, covering a total area of 720 square kilometers and the valley is 50 kilometers in length. Jiuzhai Valley, literally the Nine Village Valley, is known for the nine Tibetan villages within its boundary. Besides, Jiuzhai Valley is famous for its diversity in natural scenery, including snowy peaks, double waterfalls, colorful forests, peaceful lakes and green sea. Jiuzhai Valley is honored as "fairy-land on earth" for its unique beauty. On December 14, 1992, it was approved to be one of the world nature heritages by the UNESCO.

Jiuzhai Valley consists of six scenic spots -- Changhai, Jianyan, Nuorilang, Shuzheng, Zharu and Heihai. The graceful scenes of Jiuzhai Valley are mainly concentrated in a Y-shaped valley which consists of Nuorilang Gully and its two branches. In addition to gorgeous scenery, the fresh air and bright sunshine also makes Jiuzhai Valley an ideal place for tourism, sightseeing and vacation.

Itinerary

2013.09.14 Saturday
- 08:10 Meet at the Congress venue
- 08:30 Leave for Chengdu Shuangliu International Airport
- 10:10 Fly to Sichuan Jiuzhaihuanglong Airport (50 minutes in the air)
- 11:30 Drive to Huanglong Scenic and Historic Interest Area, have lunch
- 13:40 Tour in the park
- 18:30 Drive to Jiuzhai Valley (3 hours on the road); check into hotel
- 21:00 Dinner

2013.09.15 Sunday
- 07:00-08:00 Breakfast buffet at the hotel
- 08:00 Meet at the hotel lobby, and leave for the Jiuzhai Valley National Park
- 08:00-17:30 Tour in the park
- 17:30 Meet outside the park; back to hotel
- 19:00-21:00 Supper at the hotel, ensued by folky dance party
- Sheep-roasting party after supper (extra pay needed)

2013.09.16 Monday
- 07:00–08:00 Breakfast buffet at the hotel
- 08:00 Meet at the lobby and Leave for Baishui River Hydropower Station (1 hour on the road)
- 09:00 Tour at the Baishui River Hydropower Station
- 10:30 Leave for Sichuan Jiuzhaihuanglong Airport (3 hours on the road)
- 13:30 Lunch
- 15:55-16:50 Fly back to Chengdu (50 minutes in the air), terminal T2
- Dismiss at the airport or be sent back to hotel of your own reservation

» PT2: Three Gorges Project

DEPARTURE: Meet at 07:30 (Sept. 14), outside the entrance of CCICC
RETURN: Dismiss at the airport at about 23:35 or return to hotel of your own reservation (Sept. 17)



The Three Gorges Project was completed in 2009. Situated at Sandouping Town of Yichang City, Hubei Province, the Three Gorges Dam is the largest hydro-power station in the world with an annual energy output of 84.7 billion kilowatt-hours. The Three Gorges Dam includes three parts: the dam itself, a hydroelectric station, and a system of locks. The height of the Three Gorges Dam is 185 meters (607 ft) above the sea level. The dam is about 2,300 meters (7,546 ft) long and about 115 meters (377 ft) wide. With a water capacity of 39.3 billion cubic meters, the dam will hold a huge reservoir which will efficiently prevent flooding in the middle and lower reaches of the Yangtze River. The 1,000-square-kilometers (386 square miles) reservoir is an artificial lake showing visitors a picturesque view in sunny days that the wide blue lake and the vast azure sky merge at the horizon.

The dam would discharge flood during the flood period (July-August), if you are just visiting the Three Gorges Dam at that time, you will enjoy the marvelous spectacle of flood discharge. As a modern wonder, the Three Gorges Dam has had a massive impact upon the region's ecology and people as well as forms a new landscape adorning the Yangtze River.

Itinerary

2013.09.14 Saturday
- 07:30 Meet at the Congress venue
- 07:30 Drive to the railway station
- 09:10 Take bullet train to Chongqing
- 11:33 Arrive at Chongqing and have lunch
- 13:30 Half-day tour in downtown Chongqing
- 17:30 Supper (local cuisine)
- 19:00 Embark at Chongqing Dock (150 CNY of tip needed at check-in)
- 21:30 Voyage begins

2013.09.15 Sunday
- 07:00-08:00 Breakfast
- 08:00 Brief meeting on the tour route and cautions
- 09:00 Tour at Fengdu, the ghost town
- 14:00-16:00 Cultural activities
- 18:00 On-board welcome dinner hosted by the captain
- 20:00 Cocktail party

2013.09.16 Monday
- 07:30-10:00 Go ashore to visit City of the White Emperor (Extra pay needed)
- 10:00-10:30 Navigate through Qutang Gorge
- 12:30-16:30 Stop by at Mount Wushang; change to small boats to tour the Small Three Gorges
- 16:30 Back to the ship; navigate through Wuxia Gorge
- 19:00 Farewell party by the captain
- 22:00-02:00 Navigate through the permanent ship locks

2013.09.17 Tuesday
- 07:30-10:30 Tour Three Gorges Dam after breakfast
- 10:30-11:30 Watch Xiling Gorge on the ship
- 12:00 Arrive at Huanghuacun Dock
- 12:30 Lunch
- 14:30 A half-day tour in "paradise on earth" scenic spot
- 18:00 Dinner in downtown Yichang
- 18:50 Leave for Yichang Airport after supper
- 22:10-23:35 Fly back to Chengdu from Yichang
- Dismiss at the airport or be sent back to the hotel of your own reservation

Accompanying Persons Program

Date	Route	Time	Activity	Meet at...
Monday Sept. 9	AT1	Morning	Welcome gathering after opening ceremony	09:30 in coffee area beside Registration Desk, 3F, CCICC
		Afternoon	Visiting Kuanzhai Alley for about 40 minutes and then Jinli Street	13:10 in lobby of Holiday Inn
Tuesday Sept. 10	AT2	Morning	09:00 Visit the Panda Base for about 2 hours	08:40 in lobby of Holiday Inn
		Afternoon	Visit Luodai ancient town	
Wednesday Sept. 11	AT3	Afternoon	In-congress technical tour (to Zipingpu Dam or Dujiangyan Irrigation Project)	12:40-13:00 outside the entrance of CCICC (for Dujiangyan) or outside Dicos Restaurant (for Zipingpu)
Thursday Sept. 12	AT4	Whole Day	08:00 Leave for Emei Mountain 10:30 Arrive at Emei Mountain 18:00 Leave for Chengdu 20:30 Back to hotel	06:10 in lobby of Holiday Inn *(you will have to take care of your breakfast as the other days)*
Friday Sept. 13	AT5	Morning	09:00 Leave for Sanxingdui Relics Museum	07:40 in lobby of Holiday Inn

For more information on the sites listed above, please go to the Congress websit » Tours at: www.iahr2013.org/tour.html







Themes and Topics

Central Theme: The wise find pleasure in water: meandering through water science and engineering

A	**THEME A Water Engineering and Civilization** A1 Water science and technology in civilization A2 Scientists and water development events A3 Irrigation, navigation and urbanization A4 Hydraulic structure and machinery A5 Industrial hydraulics and renewable energy A6 Education and civilization
B	**THEME B Hydro-Environment** B1 Environmental hydraulics B2 Eco-hydrology and eco-hydraulics B3 Restoration and environmental management B4 Assessment and policy on hydro-environment B5 Urban water environment engineering
C	**THEME C Fluvial Hydraulics and River Management** C1 Mechanics of sediment transport C2 River morphodynamics C3 Numerical modelling of fluvial processes C4 Experiment, instrumentation and scale models in river hydraulics C5 River training and management C6 Reservoir sedimentation and density currents
D	**THEME D Maritime Hydraulics and Coastal Engineering** D1 Wave, tide and coastal hydraulics D2 Morphodynamics in delta and coastal areas D3 Coastal and offshore structures D4 Land reclamation, wetland protection and shore restoration D5 Coastal water quality and marine outfalls
E	**THEME E Water Resources and Hydroinformatics** E1 Water resources management E2 Surface water and groundwater hydrology E3 Water shortage and desalination E4 Computational hydraulics and hydrodynamics E5 Emerging technologies and engineering applications of hydroinformatics E6 Ice engineering
F	**THEME F Climate Change and Hazard Mitigation** F1 Impact of climate change on water resources F2 Hydrological Processes F3 Natural hazards and extreme events F4 Floods and flood management F5 Debris flows and flash floods F6 Storm surge and tsunami

» Other Topics

Special Seminars	1. Impact of extreme hydrodynamic forces on infrastructure 2. Special session in memory of Stephen Coleman 3. The new IAHR journal: Journal of Applied Water Engineering and Research 4. Climate change sensitive sustainable water resources planning and management 5. Challenges and issues in water resources management in Africa P.XX
Workshops	1. Environmental dynamics and management in the Sanjiangyuan 2. Oil spill and environment-friendly hydropower development 3. Water-economy-ecology interactions and natural-social dualistic water cycle P.XX
Short Courses	1. Landslide generated impulse waves: an introduction into a generic hazard assessment methodology 2. Turbulent flow, sediment transport and scour 3. Coherent structures and LES application in environmental hydraulics P.26
Master Classes	1. Technical writing in peer-review journals 2. Computational river dynamics P.26
IAHR Technical Committees Meetings	1. Coastal & maritime hydraulics 2. Hydraulic structures 3. EPD/young professionals 4. Marine outfalls 5. Experimental methods & instrumentation 6. WG applied hydrology-WG climate change 7. Water resources 8. Groundwater 9. Fluvial hydraulics 10. Ecohydraulics 11. Hydroinformatics 12. Fluid mechanics P.33

Program Overview

Detailed programs of Technical Session, Special Seminar, Workshop, Poster Presentation and JFK Student Paper Competition will also be included in this Handbook.

Sunday (Sept. **8**)	**Monday** (Sept. **9**)	**Tuesday** (Sept. **10**)
09:00-20:00 **Registration** 09:30-17:00 **Short Courses**	08:30 **Opening Ceremony** 501 0930-0935 Short break 09:35 **General Lectures** 501 *JIAO Yong, Gretchen KALONJI*	08:30 **Keynote Lectures** 307 *Wolfgang RODI,* *Harindra Fernando* JFK 602 P.XX
	10:35 Coffee Break & Exhibition	10:00 Coffee Break & Exhibition
	11:05 **Keynote Lecture** 501 *Tomás A. SANCHO*	11:05 Technical Session 3 P.XX; Poster Presentation 1 P.XX; **Special Seminar 3**: JAWER Launch Symposium 508 P.XX; JFK 602 P.XX
12:30-13:30 **IAHR TC Leadership Seminar**	11:50 Lunch & Exhibition 12:15 Students Corner 305	12:00 Lunch & Exhibition Students Corner 305
13:00-17:00 **Master Classes** 14:15-17:00 **IAHR Technical Committees Meeting** 16:00-19:30 **IAHR-APD Meeting**	13:30 Technical Session 1 P.XX; Forum of Int'l Water Organizations (by invitation) 310 P.XX; Special Seminar 1 P.XX; IAHR Student Chapter Meeting 507 P.XX	13:30 Technical Session 4 P.XX; Poster Presentation 2 P.XX; Special Seminar 4 P.XX; 5th Research Institute Workshop (by invitation) 601 P.XX; JFK 602 P.XX
	15:15 Coffee Break & Exhibition	15:15 Coffee Break & Exhibition
	15:45 Technical Session 2 P.XX; Forum of Int'l Water Organizations (by invitation) 310 P.XX; Special Seminar 2 P.XX; Meet the IAHR Honorary Members 507 P.XX	15:45 Technical Session 5 P.XX; Poster Presentation 3 P.XX; Special Seminar 5 P.XX; 5th Research Institute Workshop (by invitation) 601 P.XX; JFK 602 P.XX
	17:30 End of Day 1	17:30 End of Day 2
17:30 **Welcome Drinks** 3F, CCICC	18:00 **IAHR President's Reception** Shunxing Teahouse	19:00 JHR 50th Anniversary 306; Introduction of Three Gorges Project 305

	Wednesday (Sept. **11**)	**Thursday** (Sept. **12**)	**Friday** (Sept. **13**)
08:30	**Keynote Lectures** 307 *JIA Jinsheng, Shinji SATO*	**Keynote Lectures** 307 *Arthur MYNETT, CHEN Yunhua*	Technical Session 10 P.XX
10:00	Coffee Break & Exhibition	Coffee Break & Exhibition	Coffee Break & Exhibition
11:30	Technical Session 6 P.XX Poster Presentation 4 P.XX Special Seminar 6 P.XX	Technical Session 7 P.XX Poster Presentation 5 P.XX Workshop 1 P.XX	Technical Session 11 P.XX
12:00	Lunch & Exhibition Students Corner 305	12:00 Lunch & Exhibition Students Corner 305	Lunch & Exhibition Students Corner 305
13:00	**In-Congress Technical Tour** *Dujiangyan Irrigation Project, Zipingpu Dam*	13:30 Technical Session 8 P.XX Poster Presentation 6 P.XX Workshop 2 P.XX	**IAHR General Members Assembly** 307
		15:15 Coffee Break & Exhibition	15:10 Coffee Break & Exhibition
		15:45 Technical Session 9 P.XX Poster Presentation 7 P.XX Workshop 3 P.XX	15:30 **IPPEN Lecture** 307 *George CONSTANTINESCU*
			16:10 **Closing Ceremony** 307
			17:00 **Meeting of Council Members** 507
18:00	End of Day 3	17:30 End of Day 4	18:00 End of Day 5
19:00	**Students & Young Professionals Night** Yamei Restau.	19:00 **Congress Dinner** 501	

Everyday Events Overviews

Not including Technical Sessions, Special Seminars and Poster Presentations

Day	Events	Time	Venue
Sunday Sept. 8	Short Course	09:30-17:00	Sichuan University (Info P.26)
	IAHR Technical Committee Leadership Seminar	12:30-13:30	507, CCICC
	Master Class	13:00-17:00	Sichuan University (Info P.26)
	IAHR Technical Committee Meetings	14:15-17:00	2F, Holiday Inn (Info&Map P.33)
	IAHR-APD Meeting	16:00-19:30	Zhuan Zhuan Hui (Map P.29)
	Welcome Drinks	17:30-18:30	Registration Area, 3F, CCICC
Monday Sept. 9	Opening Ceremony	08:30-09:30	501 Crystal Hall, CCICC
	General Lectures (JIAO, KALONJI)	09:35-10:35	501 Crystal Hall, CCICC
	Keynote Lecture (SANCHO)	11:05-11:50	501 Crystal Hall, CCICC
	Students Corner	12:15-13:15	305 Shu Feng Hall, CCICC
	IAHR Student Chapter Meeting	13:30-15:10	507 Qing Bai Jiang Hall, CCICC
	Forum of International Water Organizations	13:30-17:30	310 Shu Rong Hall, CCICC
	Meet the IAHR Honorary Members	15:45-17:30	507 Qing Bai Jiang Hall, CCICC
	IAHR President's Reception	18:00-20:00	Shunxing Teahouse (Map P.29)
Tuesday Sept. 10	Keynote Lectures (RODI, FERNANDO)	08:30-10:00	307 Tian Fu Hall, CCICC
	JFK Student Paper Competition	08:20-18:30	602 Jin Fu Rong Hall, CCICC
	JAWER Launch Symposium	10:30-12:15	508 Xin Du Hall, CCICC
	Students Corner	12:00-13:15	305 Shu Feng Hall, CCICC
	5th Research Insitute Workshop	13:30-17:00	601 Jin Sha Hall, CCICC
	JHR 50th Anniversary	19:00-20:30	306 Shu Han Hall, CCICC
	Introduction of Three Gorges Project	19:00-20:30	305 Shu Feng Hall, CCICC
Wednesday Sept. 11	Keynote Lectures (JIA, SATO)	08:30-10:00	307 Tian Fu Hall, CCICC
	Students Corner	12:00-13:15	305 Shu Feng Hall, CCICC
	In-Congress Technical Tour	13:30-18:00	Dujiangyan, Zipingpu
	Students and Young Professionals Night	19:00-20:30	Yamei Restaurant (Map P.29)
Thursday Sept. 12	Keynote Lectures (MYNETT, CHEN)	08:30-10:00	307 Tian Fu Hall, CCICC
	Students Corner	12:00-13:15	305 Shu Feng Hall, CCICC
	Congress Dinner	19:00-21:30	501 Crystal Hall, CCICC
Friday Sept. 13	Students Corner	12:00-13:15	305 Shu Feng Hall, CCICC
	IAHR General Members Assembly	13:30-15:10	307 Tian Fu Hall, CCICC
	IPPEN Lecture (CONSTANTINESCU)	15:30-16:10	307 Tian Fu Hall, CCICC
	Closing Ceremony	16:10-17:00	307 Tian Fu Hall, CCICC
	Meeting of IAHR Council Members	17:00-18:00	507 Qing Bai Jiang Hall, CCICC

Programs in Detail

In the following pages, you will find these programs in detail:

Program of...	On Page...
General, Keynote and IPPEN Lectures	P. 24
Technical Sessions	To be added
Special Seminars and Workshops	To be added
Poster Presentations	To be added
JFK Student Paper Competition	To be added
Short Courses and Master Classes	P. 26

Before the detailed programs of Technical Session, Special Seminar and Workshop, Poster Presentation and JFK Student Paper Competition are included in this Handbook, please visit the Congress website to check the constantly updated programs at www.iahr2013.org.

» General, Keynote and IPPEN Lecturers

There will be 2 general lectures on Monday morning given by:



JIAO Yong
Vice Minister of Water Resources of P. R. China

TITLE OF SPEECH: Achieving Harmony between People and Water for Sustainable Development
TIME: 09:35-10:05, Monday (Sept. 9)
VENUE: 501 Crystal Hall, CCICC



Gretchen KALONJI
Assistant Director-General for Natural Sciences, UNESCO

TITLE OF SPEECH: Perspectives on International Cooperation for Water Security
TIME: 10:05-10:35, Monday (Sept. 9)
VENUE: 501 Crystal Hall, CCICC

as well as 7 keynote lectures from Monday to Thursday given by:



Tomás A. SANCHO
President of the WCCE (World Council of Civil Engineers); General Manager of SERS, Consultants in engineering and architecture

TITLE OF SPEECH: Water: Challenges from Urbanization and Climate Change
TIME: 11:05-11:50, Monday (Sept. 9)
VENUE: 501 Crystal Hall, CCICC



Wolfgang RODI
Professor, Institute for Hydromechanics, Karlsruhe Institute of Technology, Germany

TITLE OF SPEECH: Large Eddy Simulation in Hydraulics: the Method and its Potential
TIME: 08:30-09:15, Tuesday (Sept. 10)
VENUE: 307 Tian Fu Hall, CCICC



Harindra Joseph FERNANDO
Professor, University of Notre Dame, US

TITLE OF SPEECH: The Battle of Fluids: Air-Water-Fluvial Interactions
TIME: 09:15-10:00, Tuesday (Sept. 10)
VENUE: 307 Tian Fu Hall, CCICC



JIA Jinsheng
Vice President, China Institute of Water Resources and Hydropower Research, China

TITLE OF SPEECH: New Progress for Better Development of Dams and Reservoirs
TIME: 08:30-09:15, Wednesday (Sept. 11)
VENUE: 307 Tian Fu Hall, CCICC



Shinji SATO
Professor, Civil Engineering Department, The University of Tokyo, Japan

TITLE OF SPEECH: 2011 Tohoku Tsunami and Future Directions for Tsunami Disaster Mitigation
TIME: 09:15-10:00, Wednesday (Sept. 11)
VENUE: 307 Tian Fu Hall, CCICC



Arthur MYNETT
Professor, UNESCO-IHE Institute for Water Education, The Netherlands

TITLE OF SPEECH: Sustainable Delta Development: Living with Water, Building with Nature
TIME: 08:30-09:15, Thursday (Sept. 12)
VENUE: 307 Tian Fu Hall, CCICC



CHEN Yunhua
General Manager, Yalong River Hydropower Development Company, Ltd., China

TITLE OF SPEECH: Key Technical Issues and Research Work in Yalong River Hydropower Development
TIME: 09:15-10:00, Thursday (Sept. 12)
VENUE: 307 Tian Fu Hall, CCICC

and 1 more lecture on Friday given by winner of IPPEN Award:



George CONSTANTINESCU
Professor, Dept of Civil and Environmental Engineering & IIHR Hydroscience and Engineering, The University of Iowa, USA

TITLE OF SPEECH: On the Influence of Coherent Structures on Flow Hydrodynamics, Transport and Mixing at River Confluences
TIME: 15:30-16:10, Friday (Sept. 13)
VENUE: 307 Tian Fu Hall, CCICC

» Short Courses and Master Classes

VENUE: All short courses and master classes will be held in College of Water Resources and Hydropower, Sichuan University.
HOW TO GET THERE: There will be free bus leaving the entrance of CCICC at 9:00 directly for the classroom.

Short Course SC1

TITLE: Landslide generated impulse waves: an introduction into a generic hazard assessment methodology
LECTURERS: Valentin Heller, Robert Boes, Willi Hager, Helge Fuchs, Benedict Rogers
INSTITUTIONS: Imperial College London, ETH Zürich, The University of Manchester
TIME: 09:30-17:00, Sunday, September 8

Short Course SC2

TITLE: Turbulent flow, sediment transport and scour
LECTURER: Subhasish Dey
INSTITUTION: Indian Institute of Technology
TIME: 09:30-17:00, Sunday, September 8

Short Course SC3

TITLE: Coherent structures and LES application in environmental hydraulics
LECTURER: George Constantinescu
INSTITUTION: University of Iowa
TIME: 09:30-17:00, Sunday, September 8

Master Class MC1

TITLE: Technical writing in peer-review journals
LECTURERS: Junke Guo and Willi Hager
INSTITUTIONS: University of Nebraska and ETH Zürich
TIME: 13:00-17:00, Sunday, September 8

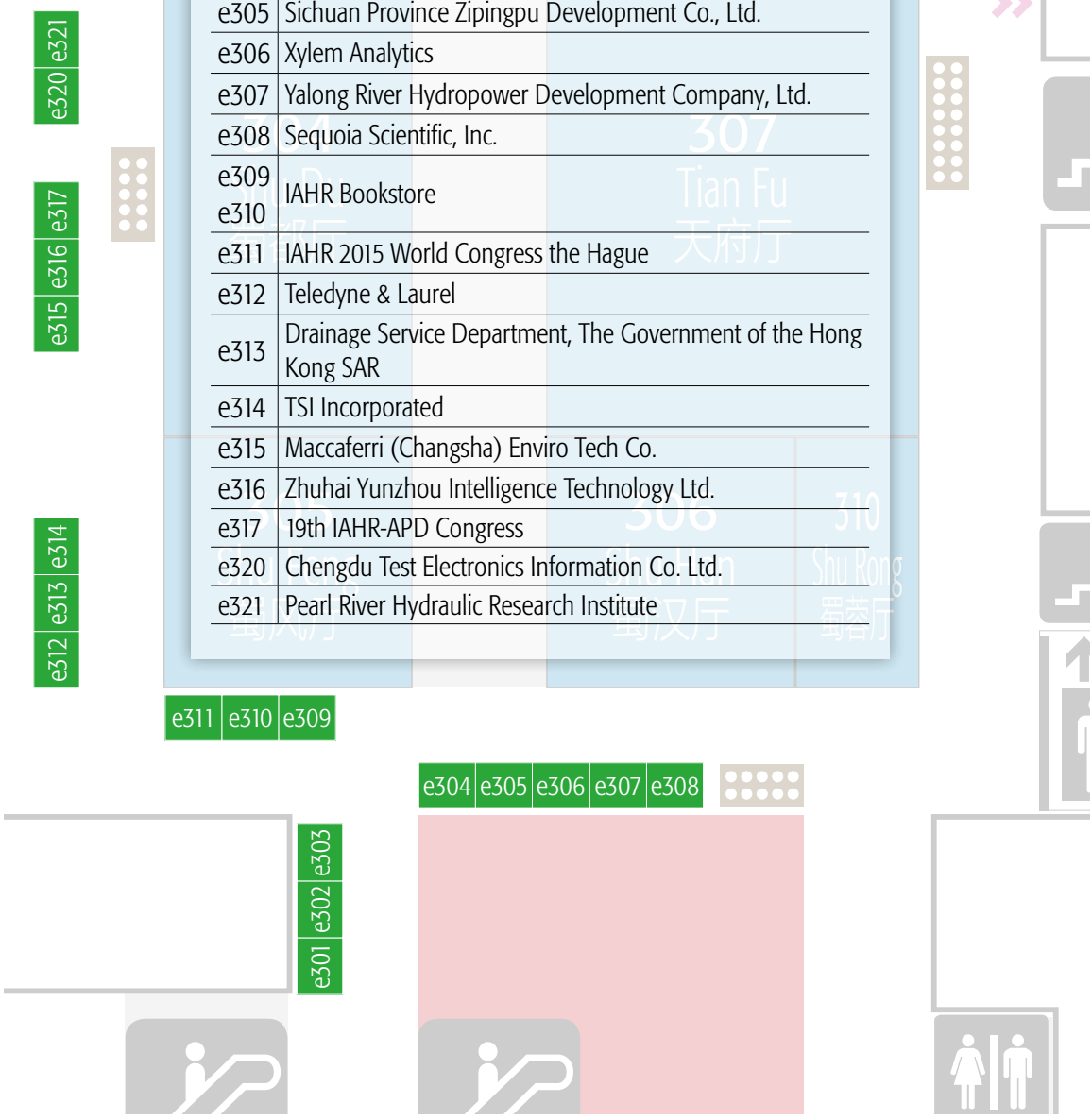
Master Class MC2

TITLE: Computational river dynamics
LECTURER: Weiming Wu
INSTITUTION: The University of Mississippi
TIME: 13:00-17:00, Sunday, September 8

Exhibitors

The exhibition stands are all on the corridor of 3F, CCICC.

e301	Weltpure Environment (Shanghai) Co., Ltd.
e302	China Three Gorges Corporation
e303	Zealquest Scientific Technology Co., Ltd.
e304	Sifotek
e305	Sichuan Province Zipingpu Development Co., Ltd.
e306	Xylem Analytics
e307	Yalong River Hydropower Development Company, Ltd.
e308	Sequoia Scientific, Inc.
e309 e310	IAHR Bookstore
e311	IAHR 2015 World Congress the Hague
e312	Teledyne & Laurel
e313	Drainage Service Department, The Government of the Hong Kong SAR
e314	TSI Incorporated
e315	Maccaferri (Changsha) Enviro Tech Co.
e316	Zhuhai Yunzhou Intelligence Technology Ltd.
e317	19th IAHR-APD Congress
e320	Chengdu Test Electronics Information Co. Ltd.
e321	Pearl River Hydraulic Research Institute



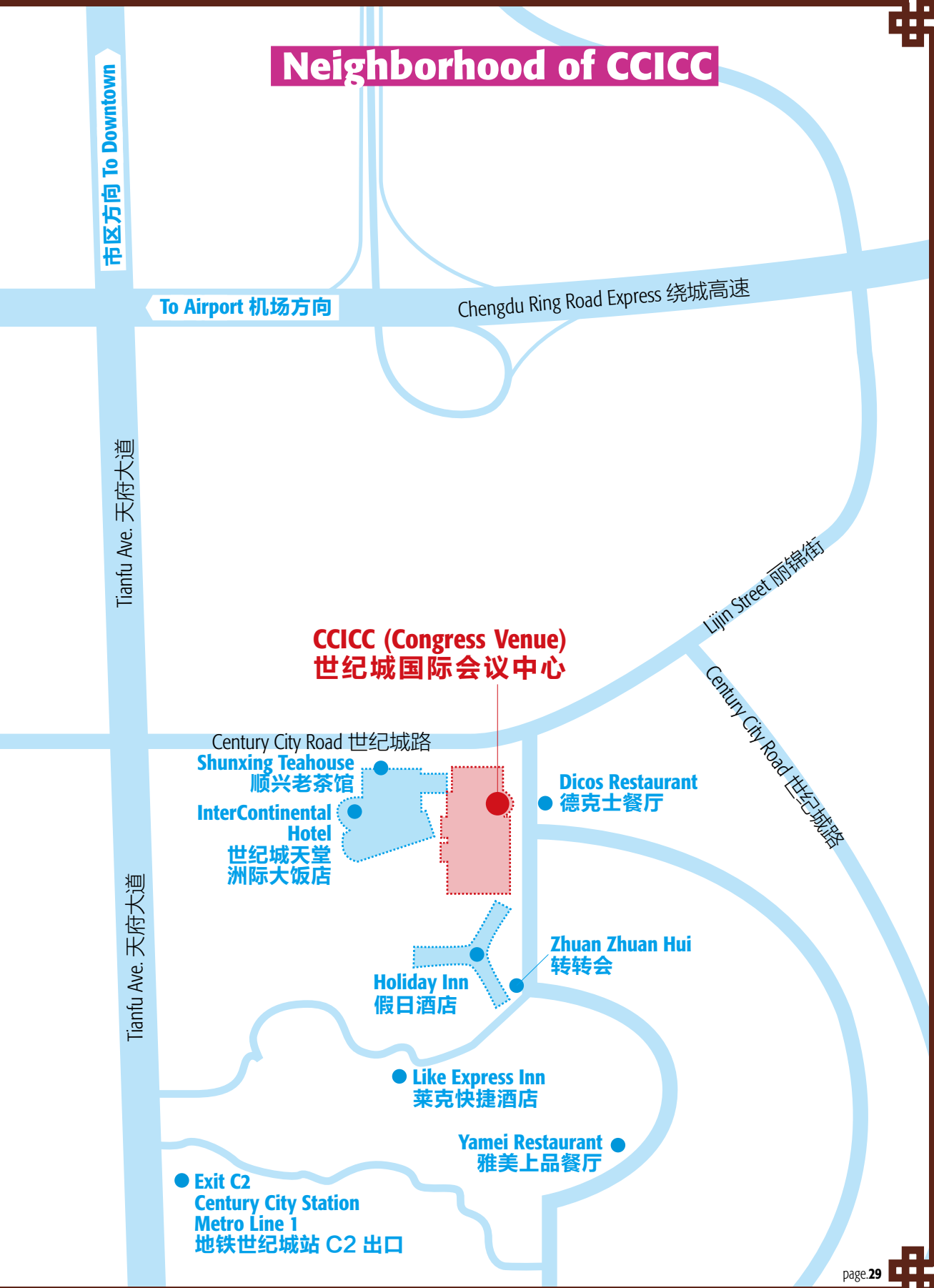
Maps

Map of Chengdu

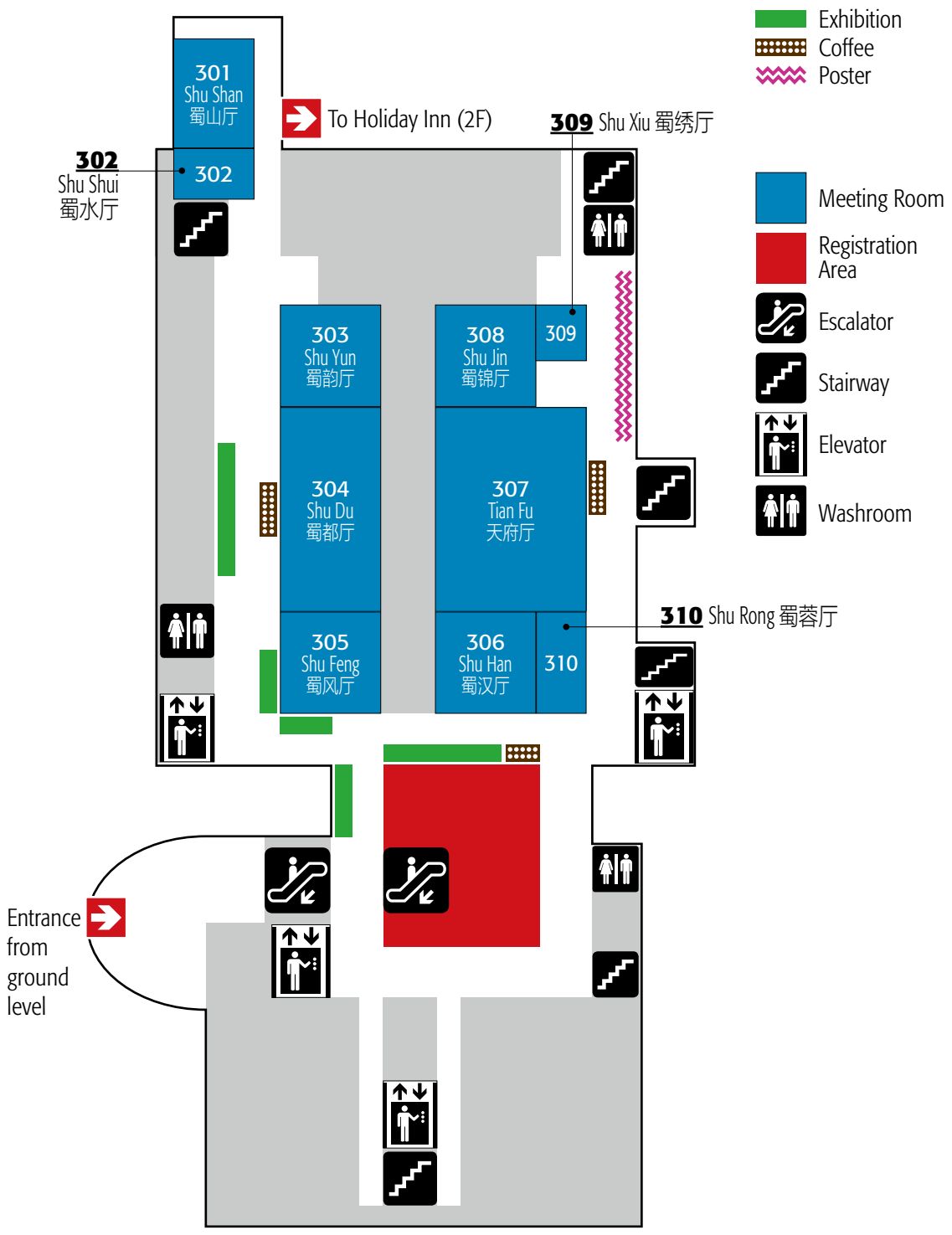




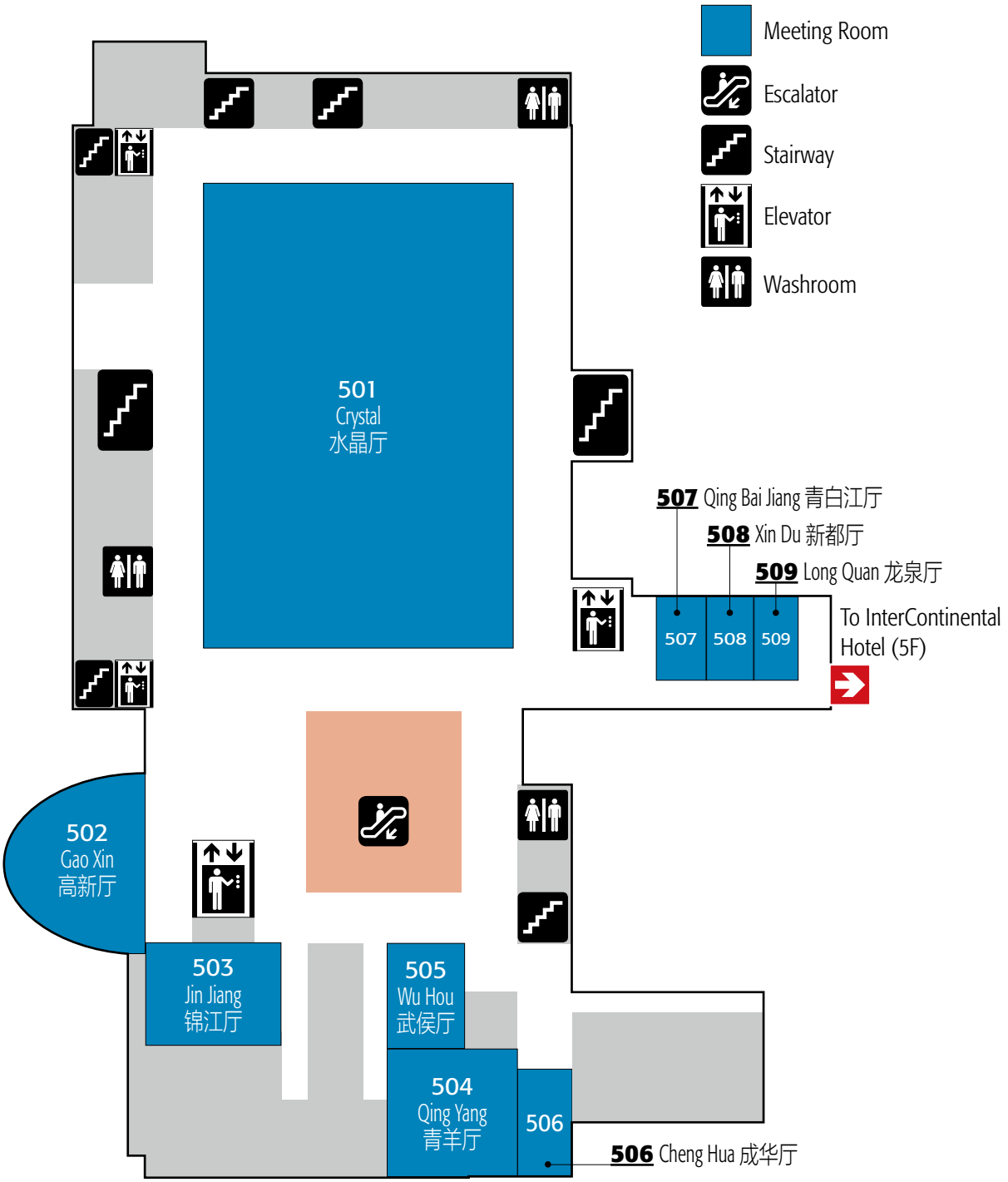
Neighborhood of CCICC



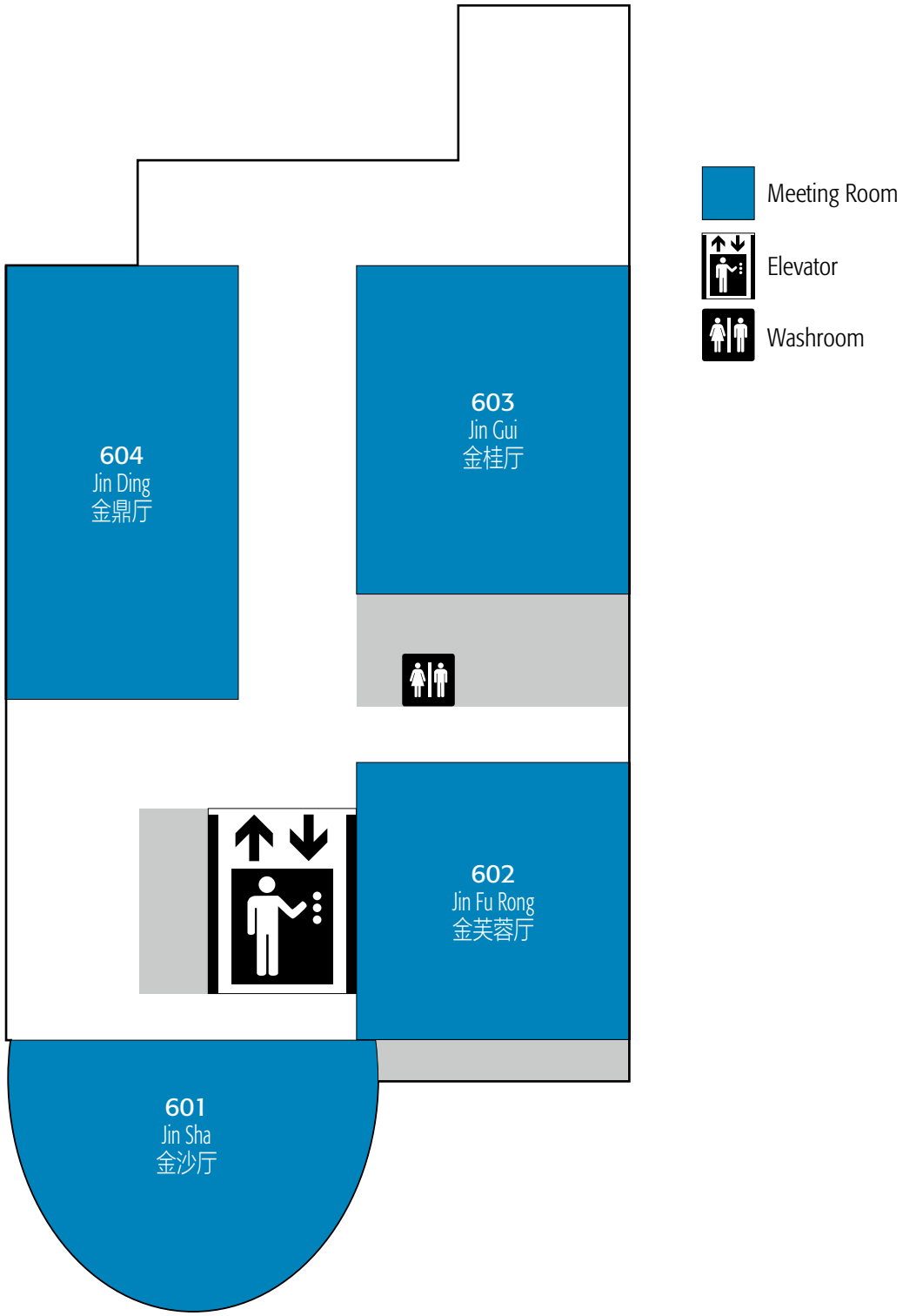
3F, CCICC


Exhibition
Coffee
Poster
Meeting Room
Registration Area
Escalator
Stairway
Elevator
Washroom
301 Shu Shan 蜀山厅
302
302 Shu Shui 蜀水厅
To Holiday Inn (2F)
309 Shu Xiu 蜀绣厅
303 Shu Yun 蜀韵厅
308 Shu Jin 蜀锦厅
309
304 Shu Du 蜀都厅
307 Tian Fu 天府厅
310 Shu Rong 蜀蓉厅
305 Shu Feng 蜀风厅
306 Shu Han 蜀汉厅
310
Entrance from ground level

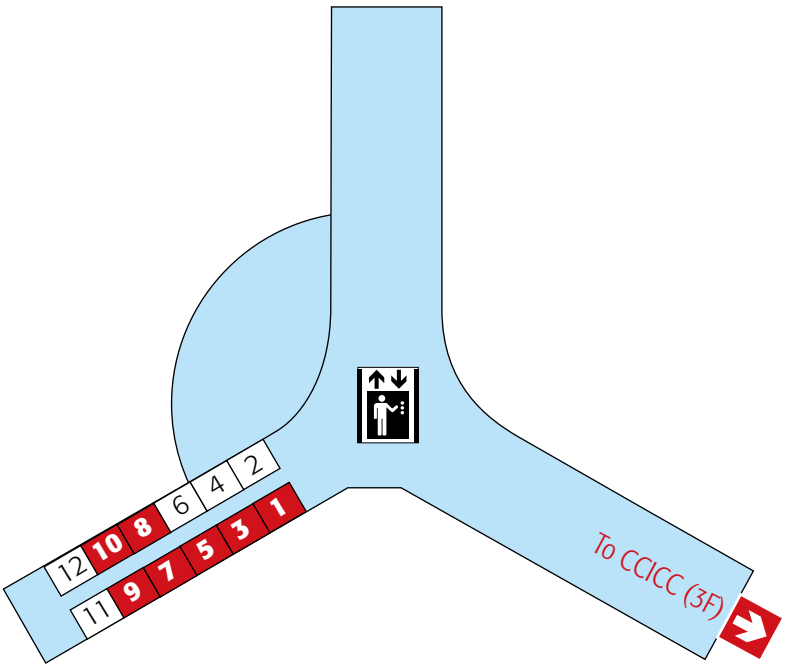
5F, CCICC


Meeting Room
Escalator
Stairway
Elevator
Washroom
501
Crystal
水晶厅
507 Qing Bai Jiang 青白江厅
508 Xin Du 新都厅
509 Long Quan 龙泉厅
507
508
509
To InterContinental
Hotel (5F)
502
Gao Xin
高新厅
503
Jin Jiang
锦江厅
505
Wu Hou
武侯厅
504
Qing Yang
青羊厅
506
506 Cheng Hua 成华厅

6F, CCICC


604
Jin Ding
金鼎厅
603
Jin Gui
金桂厅
602
Jin Fu Rong
金芙蓉厅
601
Jin Sha
金沙厅
Meeting Room
Elevator
Washroom

2F, Holiday Inn



12. Aigrette	10. White Crane	8. Swift	6. Swan	4. Carve	2. Parrot
11. Lavrock	9. Thrush	7. Mew	5. Trochilus	3. Snow Swan	1. Oriolus Traili

Time	Meetings and Activities	Chair	Venue
14:15-15:45	Coastal & Maritime Hydraulics (1)	Francisco Pinto	1. Oriolus Traili
	Hydraulic Structures	Stefano Pagliara	3. Snow Swan
	EPD/Young Professionals	Ioana Popescu	5. Trochilus
	Marine Outfalls	Adrian Law	7. Mew
	Experimental Methods & Instrumentation	Jochen Aberle, Cristina di Cristo	8. Swift
	WG Applied Hydrology-WG Climate Change	Roberto Ranzi	9. Thrush
15:45-16:00	Coffee Break		
16:00-17:00	Coastal & Maritime Hydraulics (2)	Francisco Pinto	1. Oriolus Traili
	Water Resources	Pradeep Mujumdar	3. Snow Swan
	Groundwater	Nadim Copty	5. Trochilus
	Fluvial Hydraulics	Mustafa Altinakar	7. Mew
	Ecohydraulics	Thom Hardy	8. Swift
	Hydroinformatics	Dragan Savic	9. Thrush
	Fluid Mechanics meeting agenda	George Constantinescu	10. White Crane
17:30-18:30	Congress Welcome Drinks		Registration Area (3F), CCICC

IAHR Technical Committee Meetings will be held on Sunday (Sept. 8). (Program Overview P.20)